

**METHOD AND APPARATUS FOR ESTABLISHING A PATH IDENTIFIER  
IN A COMMUNICATION NETWORK**

**ABSTRACT OF THE DISCLOSURE**

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A network element, or network switch, includes a control layer implemented over a physical layer to support processing to automate the establishment, modification, and/or deletion of communication links within the communication network. In general, the network element may include firmware to support processing for establishing a path identifier that begins by establishing a communication link to include a plurality of network elements of the communication network. Each of the plurality of network elements is of a particular type of network element where like types of network elements are arranged into groups of network elements. The processing then continues by determining each grouping of network elements that are of the same type of network element that support the communication link to produce a set of groupings of network elements. The processing then continues by assigning a path identifier to the set of groupings of network elements.